Office Supreme Court, U. S.
FILED
MAY 19 1919
JAMES D. MAHER,
CLERK.

IN THE

SUPREME COURT OF THE UNITED STATES

SITTING IN EQUITY.

No. 35 Orig. TERM, 1919.

Between

THE COMMONWEALTH OF PENNSYLVANIA,
Complainant,

and

THE STATE OF WEST VIRGINIA,
Defendant.

Brief on Motion for Preliminary Injunction.

WILLIAM I. SCHAFFER,
Attorney General of the Commonwealth of Pennsylvania, Complainant.

WILLIAM I. SCHAFFER,
A. LEO. WEIL,
Of Counsel.

James McMillin Printing Company, Penn Ave. and Barbeau St., Pittsburgh, Pa.

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THE COMMONWEALTH OF PENNSYLVANIA,
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This is a controversy between two sovereign States. The Commonwealth of Pennsylvania is Complainant, and the State of West Virginia is Defendant. Under the Constitution of the United States, Article III, Section 2, and the Judicial Code, Section 233, "the Supreme Court shall have exclusive jurisdiction of all controversies of a civil nature where a State is a party." The controversy here is peculiarly within this jurisdiction, because the controversy is of a civil nature, and a State is party

sums of money to equip their houses and plants respectively with appliances adapted for burning this fuel, and to restrict and diminish the supply to any considerable extent would affect the domestic consumers in their health, their comfort, their convenience, and their welfare, would subject them to enormous property losses in rendering useless their present appliances and necessitating the substitution of others, in many cases requiring the reconstruction of dwellings, while the industrial consumers, if thus restricted and the supply of gas greatly diminished, would not only suffer great loss, but be placed at a disadvantage in competition with manufacturers in other States where by law an adequate supply was provided."

Upon the authority of the averments of the Bill of Complaint and the affidavits filed on this motion for preliminary injunction, Complainant submits:

That millions of Pennsylvania citizens are now dependent upon natural gas from West Virginia as fuel for cooking and for heating their dwellings; that natural gas is not obtainable by them from other sources; that to change their gas appliances to enable them to burn other fuel will require months if not years; that in many cases houses will have to be reconstructed; that artisans and material for making such changes upon such an enormously extended scale are not available; that the cost of such changes will aggregate tens of millions of dollars; that other fuel cannot be simultaneously used with natural gas, because the appliances for burning natural gas are not adapted to such other fuels; that the enforcement of the West Virginia statute, pending adjudication of its constitutionality, will, as stated, men-

ace life and health, cause discomfort and inconvenience, and occasion huge expenditures; all of which are unnecessary if, as complainant maintains, the Constitution of the United States forbids the enforcement of such statute.

The fact, as alleged in the Bill of Complaint and as shown by the affidavits, that this controversy is interwoven with the daily life of millions of people, affecting their lives, their health, their comfort and their convenience, as well as their financial resources, makes more apparent the necessity for a preliminary injunction, pending final adjudication of their rights.

The characteristics of the natural gas industry—the necessity for continuous supply; the foresighted development of explored territory; the exploration of prospective territory to provide for the constant depletion of supply; the operation of a system of pipe lines with compressor stations; the adaptation of the whole system of pipe line transportation and distribution as one operating unit—all combined, make it imperative that the operating heads should be able to estimate the probable demands upon the lines for the coming winter, and not be subjected to intermittent and uncontrolled drafts by other companies, of uncertain amounts and at unexpected times, if the system of gas production and distribution is to be operated with any efficiency, and a continuous supply of gas to domestic consumers maintained.

The attention of the Court is invited to the following further considerations as bearing upon the necessity for a preliminary injunction:

(a) If natural gas now being supplied to domestic consumers in Pennsylvania and Ohio can be cut off from

time to time, or all the time, as provided by the West Virginia statute, preparations must be at once made by such consumers to prepare as far as possible for cold weather. Fuel for cooking purposes must be had; fuel for heating the home must be assured; the householder dare not risk the uncertainties which the operation of the West Virginia statute will create. Every natural gas company, in fairness, must notify its consumers of what they must expect under the operation of said statute.

(b) The fuel for special industrial purposes must likewise be regular and not intermittent, and those industries now using gas for such special purposes cannot continue such use if this statute is enforced, and will be compelled to make provision for other fuel.

(c) Where these changes in fuel appliances can be made, if after they have been made this Court should decide, as contended by Complainant, that said statute is unconstitutional, then if such consumers return to the use of natural gas it will entail not only the loss incident to making such changes, but also the expense of reinstalling gas-burning appliances, and the junking of those just installed.

(d) In many towns and cities, where houses have been constructed solely with reference to the use of natural gas for fuel, families will be compelled to move out of such dwellings into other localities or sections, if dwellings can be there found adapted to other fuel, or they will at once have to begin the reconstruction of such houses so as to adapt them to the use of other fuel. In many instances certain sections of towns and cities, and even certain towns, will be largely depopulated.

(e) These changes in the consumption of gas and in the demand upon natural gas companies will introduce such uncertainty and chaotic conditions, that meanwhile, and until final adjustment, the natural gas companies will suffer enormous losses.

(f) The enforcement of this statute of West Virginia, pending adjudication, will necessitate changing the entire system of contracting for supply, and the purchase of and drilling for gas by the respective gas companies. Under the conditions introduced by this West Virginia statute, they will have no means of ascertaining what supply they must provide for, how they can provide for it, and whether or not they can transport it.

(g) Many of the natural gas companies now have contracts with West Virginia producing companies, under which the producing companies deliver gas to these gas companies for distribution in Pennsylvania, Ohio and other States. These producing companies will not know, under the enforcement of this statute, whether or not they can deliver the gas in accordance with their contracts, and the distributing companies will not know whether or not they can obtain the gas to supply to consumers under the said contracts, and the consumer will not know whether or not he can rely upon the gas from the distributing company, and an intolerable condition will prevail.

(h) The burning of natural gas for fuel for domestice purposes, instead of coal or wood, has entirely changed the domestic economy of those sections using gas, and to return to former conditions would require months, if not years, and work a social revolution, involving the retraining of help, and a substantial reorganization of society in all such communities.

The harmful consequences to the lives, health, comfort, convenience, welfare, financial resources and domestic economy of whole communities, and of large numbers of communities, and of communities of large numbers, involved in and affected by the enforcement of this statute of West Virginia, are almost beyond narration. The property rights of such communities, of the gas companies, and of complainant, involved in and affected by the enforcement of this statute, are almost incalcuable. On the other hand, to stay the enforcement of this statute, by preliminary injunction, pending final adjudication by this Court, involves no upheaval, no fundamental domestic or economic changes, no revolution of existing conditions, but the continuance, for an additional brief period, of the conditions which have prevailed these many years. Meanwhile this Court will have had the opportunity to determine whether or not said statute shall be enforced, and whether or not this industrial and economic revolution, at such frightful cost, shall become necessary. If necessary, then so be it, but until decided necessary, let the hand of affliction and destruction be stayed.

Respectfully submitted,

WILLIAM I. SCHAFFER,
Attorney General of The Commonwealth of Pennsylvania, Complainant.

WILLIAM I. SCHAFFER,
A. LEO. WEIL,
Of Counsel.

Office Supreme Court, U. S.
FILED
MAY 19 1919
JAMES D. MAHER,
CLERK.

IN THE

Supreme Court of the United States

SITTING IN EQUITY.

No. 23 Orig. TERM, 1919.

THE COMMONWEALTH OF PENNSYLVANIA, Complainant,

vs.

THE STATE OF WEST VIRGINIA, Defendant.

AFFIDAVITS EX PARTE COMPLAINANT ON MOTION FOR PRELIMINARY INJUNCTION.

WILLIAM I. SCHAFFER,
Attorney General of Commonwealth of Pennsylvania.

WILLIAM I. SCHAFFER,
A. LEO. WEIL,
Of Counsel.

James McMillin Printing Company, Penn Ave. and Barbeau St., Pittsburgh, Pa.

IN THE

Supreme Court of the United States

SITTING IN EQUITY.

No. ..... Term, 1919.

Between

THE COMMONWEALTH OF PENNSYLVANIA, Plaintiff,
and
THE STATE OF WEST VIRGINIA, Defendant.

AFFIDAVITS EX PARTE COMPLAINANT ON MOTION FOR PRELIMINARY INJUNCTION.

AFFIDAVIT OF S. S. WYER.

SAMUEL S. WYER, being duly sworn according to law, deposes and says:

1. I am a consulting engineer, with offices in the Hartman Building, Columbus, Ohio.

I am a member of the American Society of Mechanical Engineers, American Institute of Mining Engineers, American Association for Advancement of Science, and the American Gas Association.

In the latter part of 1918 I acted as Chief of Natural Gas Conservation of the United States Fuel Admin-

istration, and was in direct charge of all natural gas conservation activities of the Fuel Administration.

2. I am the author of numerous treatises on natural gas and kindred subjects, a list whereof is hereto attached marked "Exhibit A."

3. I have for many years given much attention and investigation to natural gas problems, with special reference to the economic features of production, transportation and distribution of natural gas by natural gas companies, natural gas service, valuation of property of natural gas companies, and to many other questions affecting the production, transportation, distribution and sale of natural gas, and have made examinations of plants and valuations in different localities, a list whereof is hereto attached marked "Exhibit B."

4. I have made many reports on natural gas service and plants, a list whereof is hereto attached, marked "Exhibit C."

5. I have recently been working with the United States Bureau of Mines, Washington, D. C., on, (a) Quality of natural gas in Ohio; (b) removal of gasoline from natural gas; and with the United States Bureau of Standards, Washington, D. C., on, (c) Development of a standard type of apparatus for determining specific gravity of natural gas; (d) Natural Gas Safety Code; and with the Smithsonian Institution, Washington, D. C., on the preparation of a model showing the various steps in the prospecting for, mining, transmission and distribution of natural gas; and with the Internal Revenue Bureau of the U. S. Treasury Department on the valuation of natural gas properties for Income Taxation.

6. I have been employed as an expert on natural gas production, transportation and distribution by the Federal Government, several States, a number of Pub-

lic Service Commissions, many municipalities, and some of the largest natural gas companies.

7. At the request of the States of Pennsylvania and Ohio I made an exhaustive investigation and careful study of the West Virginia statute in controversy (which was approved by the Governor of West Virginia on February 17th, 1919), so as to be able to state what effect the operation of said statute will have upon the transportation of gas from West Virginia into Pennsylvania and Ohio.

8. The necessary effect of the operation of said statute, however reasonably interpreted or considerately enforced, will be to prevent the transport of any gas from West Virginia into other States, and to confine the consumption of all gas produced in West Virginia to the consumers located in said State, to the exclusion of all others.

9. To readjust appliances and houses to the use of other fuel will require many months, and in many cases the reconstruction of dwellings, and meanwhile the discontinuance of a gas supply will endanger the lives and affect the health of and occasion discomfort and inconvenience to the millions of domestic consumers in Pennsylvania and Ohio now using gas brought from West Virginia. The ultimate effect of such compulsory readjustment will be a loss of hundreds of millions of dollars to consumers and an even larger amount to those engaged in the transportation of gas from West Virginia and the distribution thereof among consumers in Pennsylvania and Ohio.

10. Such a radical economic change cannot be precipitated without loss of life, impairment of health, and the suffering of indescribable hardships, discomforts and inconveniences by millions of citizens of said two States. If these changes were immediately begun, the

necessary armies of plumbers, gas fitters, tin and iron workers, bricklayers, tile-setters, and carpenters, are not available, nor the tons of material obtainable, to complete said changes in appliances and construction before the cold weather of winter would be here.

11. In elaboration and confirmation of the foregoing facts and statements, the following further facts are given as to the natural gas industry, its production, transportation, distribution and consumption.

Interstate commerce in gas has become a recognized and integral part of the natural gas industry.

There are more than five million people in the States adjacent and contiguous to West Virginia who are dependent on the unrestricted flow of natural gas from West Virginia to such States, for instance—

(a) 100 per cent. of all the gas used in Maryland is imported from West Virginia, and this gas can be obtained from no other source.

(b) Over 35 per cent. of natural gas used in Pennsylvania is imported from West Virginia. Certain companies operating in Pennsylvania, and certain populous districts, are dependent entirely on West Virginia for their supply.

(c) Over 50 per cent. of the natural gas used in Ohio is imported from West Virginia. Certain companies operating in the State, and certain populous districts in that State, must get all their gas from West Virginia.

(d) 80 per cent. of the gas used in Indiana is imported from West Virginia and the companies importing this gas cannot get a supply from any other source.

(e) 90 per cent. of the gas used in Kentucky is imported from West Virginia and this 90 per cent. cannot be obtained from any other source.

The number of municipalities in States adjacent and contiguous to West Virginia depending *entirely* on West Virginia for their natural gas service is substantially as follows:

Ohio,	300
Pennsylvania,	300
Kentucky,	25
Indiana,	15
Maryland,	14

The number of domestic consumers in the States adjacent and contiguous to West Virginia depending entirely on West Virginia for their natural gas service, and the number of people thus supplied, counting five to each household, is substantially as follows:

	Consumers.	*Population.*
Pennsylvania,	300,000	1,500,000
Kentucky,	75,000	375,000
Indiana,	15,000	75,000
Maryland,	10,000	50,000
Ohio,	725,000	3,625,000
	1,125,000	5,625,000

12. Storage facilities for natural gas are not commercially feasible in the field nor at the delivery end of the natural gas line. For this reason the large variation in service demands must be met by the lines and the wells; that is, all of the field operations must be subordinated to the peculiar service demands arising from the ultimate consumers' varying requirements for gas.

13. As the gas is removed from the underground reservoirs the gas pressure that can be maintained in

the pipes by natural means declines, and to supplement this it is necessary to install compressing stations in order to recompress the gas to transmit it through the pipe lines. There are a large number of such compressing stations located in West Virginia performing this function, but they are located primarily for the purpose of transmitting the gas through the interstate lines, and many of them would be of no service for intrastate purposes.

14. The natural gas main lines form the connecting link between the mining operations in the natural gas fields and the ultimate consumer, frequently several hundred miles away. The use of pipe lines is the only commercially feasible method of transmitting natural gas. Many lines have been laid through and out of West Virginia for the handling of interstate commerce in natural gas.

15. The gas in going from the field to the ultimate consumer is never at rest, but is a constantly seething, moving mass between the source of supply in the field and the ultimate consumer's fixtures. There is a continuity of service between the gas sand in West Virginia and the remotest consummer, as for example, at Noblesville, Indiana, 343 miles away.

16. Natural gas is becoming scarce. The demand is now greater than the available supply. The United States Fuel Administration, because of the urgency of the natural gas shortage situation, distributed 100,000 posters calling public attention to this declining condition and emphasizing the necessity of conserving the gas *for domestic use.*

17. Considering the interstate demands for West Virginia's natural gas resources, there is no "excess supply of gas" available during the "peak load" periods;

that is, during the peak load period all companies are, even now, proverbially short of natural gas and have demands for interstate service greater than they can supply. The peak load for domestic consumers exceed the lowest demand by over one thousand per cent. A failure to supply this peak load which occurs during the coldest weather occasions the most intense suffering.

18. There is no regeneration of natural gas. When the gas is once used it is gone forever.

19. The United States Government has in recent years made a special effort to give publicity to the increasing scarcity of natural gas and emphasizing the necessity of conserving present supplies for future use. Thus, the U. S. Bureau of Mines has issued ten distinct technical publications on this subject. The U. S. Fuel Administration has issued two, and the Smithsonian Institution has issued one.

20. The abnormal peaks of very short duration are characteristic of all natural gas loads for domestic consumers. Industrial loads ordinarily are very much more uniform than domestic loads.

21. Natural gas service must be instantaneous. There must be no delaying in rendering service, as is possible and universally practiced in transportation agencies, such as railroads and traction lines.

The gas pressures maintained in the lines must be varied to suit the operating conditions of the lines. That is, a natural gas company in interstate business in West Virginia has to adjust its pressure to suit interstate delivery possibilities; for instance, at Noblesville, Ind., Toledo, Cincinnati, Cleveland, Columbus, Dayton, Ohio; Pittsburgh, Johnstown, Altoona, Pa.; Cumberland, Md., or Louisville, Ky. The making of "physical connection" in West Virginia between such interstate lines and local lines as provided for in said statute

would have the immediate practical effect of demoralizing and destroying the interstate service. Such interstate service would be impossible with such connections made from time to time for uncertain quantities, and at unexpected and unprovided for times.

22. The capacity of the transmission lines through which the gas is transmitted is rigidly fixed and will not stand any overload.

23. West Virginia domestic natural gas consumers are now receiving a larger annual average amount of natural gas per consumer than the domestic consumers of the adjacent or contiguous states. Thus, the averagage annual consumption of each domestic consumer is as follows:

West Virginia,	158,000 cu. ft.
Ohio,	101,000 cu. ft.
Pennsylvania,	120,000 cu. ft.
Kentucky,	68,000 cu. ft.
Maryland,	79,000 cu. ft.
Indiana,	76,000 cu. ft.

24. The relative industrial use of natural gas in West Virginia is now larger than for any of the contiguous or adjacent states. Thus, of the total gas consumption within the respective states, the percentages that are used for industrial work are as follows:

West Virginia,	86%
Pennsylvania,	72%
Ohio,	50%
Kentucky,	41%
Indiana,	33%

25. The inevitable result of the enactment of said statute is to further stimulate the industrial use of nat-

ural gas in West Virginia, rather than improve the service to the domestic consumers. The industries now located in West Virginia under the application of said statute requiring that an adequate supply be furnished to them ,will use all the gas now produced in West Virginia. Other industries now outside of the State that want to use natural gas will be induced by said State to locate within West Virginia. They cannot under said statute obtain any supply if they rely upon the gas to be transported out of the State in interstate transportation. For instance, the lamp-black industry now in West Virginia—which is without doubt the most wasteful use of gas in existence—now takes 50 per cent. more gas than is used by all of the domestic consumers in the entire State. This statute would increase this wasteful use. This statute will inevitably increase such industries. Even without such increase, there are now enough industries in West Virginia to use all the gas produced in said State.

26. The domestic consumers depending on natural gas service from West Virginia have invested on an average of at least $100 each in equipment, fixtures and apparatus, that become valueless if the West Virginia gas is shut off. This amounts to the following for the respective States:

Ohio,	$ 72,500,000
Pennsylvania,	30,000,000
Kentucky,	7,500,000
Indiana,	1,500,000
Maryland,	1,000,000
	$112,500,000

27. Natural gas companies concerned in interstate natural gas coming out of West Virginia, without con-

sidering the lease-holds, wells, gathering lines, &c., which would perhaps aggregate a larger amount, have invested at least $200,000,000 in compressing stations, main lines, distributing plants, etc., which would have largely a salvage value only if the West Virginia statute were to become effective.

28. The said statute violates the fundamental principles of equitable distribution of natural gas, in that it places industrial consumers on the same basis as domestic consumers, thereby ignoring the humane and economic aspect recognized by all courts and utility commissions, namely, that the needs of the domestic consumer must take precedence over all other users. This humane and economic aspect was recognized by the United States Fuel Administration in all of its gas rationing orders and was not even abrogated by the plea of military necessity for natural gas for munitions manufacturing.

29. The provincial habit of looking at natural gas from the dwarfed viewpoint of local use and immediate present service, is the primary cause of the acute natural gas service problems existing today.

The history of the industry, especially in past years, has been one of unrestricted waste and profligate disregard for the inevitably increasing demand and obvious physical limitations of supply. New conditions are now being insisted upon.

30. The terms of this statute are in accord with the early age of waste, profligacy and ignorance in the natural gas industry. It is revolutionary of existing universally adopted and applied rules and regulations, in the priorities, preferences and conservation in the use of natural gas. The conservation by all natural gas companies of a sufficient supply for domestic use is based in part on its greater efficacy and economy in such

use as compared with industry. The whole domestic economy of the gas-using areas is involved. The change back from gas to coal would upset that economy, as much as to change back to wood, in those sections burning coal, or in those same sections to open fire-places instead of stoves, ranges and furnaces. The changes in house construction and burning appliances, as between gas and other fuel, are greater than as between wood or coal, or between the one-time open fire-place, and stoves, ranges and furnaces.

S. S. WYER.

State of West Virginia,
County of Kanawha, } *ss*:

Before me, a Notary Public in and for said County, personally came S. S. Wyer, who being duly sworn, according to law, deposes and says that the facts stated and statements made in the foregoing affidavit are true and correct.

S. S. WYER.

Sworn to and subscribed before me this 9th day of May, 1919.

D. C. JOY,
Notary Public.

[SEAL]

Commission expires May 2, 1925.

EXHIBIT "A."

(a) Treatise on Producer Gas and Gas Producers.

(b) Pamphlet on Rate Regulation of Electric Power.

(c) Treatise on Regulation, Valuation and Depreciation of Public Utilities.

(d) Pamphlet on Depreciation of Natural Gas Wells.

(e) Pamphlet on Natural Gas Service.

(f) Compilation of Cases Relating to Gas Compression Question.

(g) Paper before American Institute of Mining Engineers on "Is It Feasible to Make Common Carriers of Natural Gas Transmission Lines?

(h) Paper before the American Institute of Mining Engineers on "Development of the Law Relating to the Use of Gas Compressors in Natural Gas Production."

(i) Paper before the American Institute of Mining Engineers on "Effect and Necessary Use of Gas Compressors in Natural Gas Production."

(j) Paper before the American Society of Mechanical Engineers (jointly with Robert F. Earhart, Professor of Physics, Ohio State University, Columbus, Ohio), on "Deviation of Natural Gas from Boyle's Law."

(k) Paper on "Criteria for Making Public Utility Service Extensions," published in Case and Comment.

(l) Paper on "The Reasonableness and Legal Right of the Mnimum Charge in Public Utility Service." Reprinted by American Gas Association.

(m) Paper before the American Institute of Mining Engineers on "Principles of Natural Gas Leasehold Valuation."

(n) Paper on "Electrolysis Damages from Stray Electric Currents from Single Trolley Electric Railways." Published in Case and Comment.

(o) Paper on "Effect of Gas Pressure on Natural Gas Cooking Operations in the Home," jointly with Edna Noble White and Grace Linder, of the Department of Home Economics, Ohio State University. Published as Ohio State University Bulletin No. 28.

(p) Digest of Publications of Bureau of Standards on Electrolysis of Underground Structures Caused by the Disintegrating Action of Stray Electric Currents from Electric Railways. U. S. Bureau of Standards, Washington, D. C.

(q) Paper before Natural Gas Association of America on "Elimination of Discrimination in Public Utility Rates by Readiness-to-Serve Charges."

(r) Paper on "Natural Gas, Its Production, Service and Conservation." Published as part 7, Bulletin 102 of the Smthsonian Institution, Washington, D. C.

(s) Pamphlet on "Use and Conservation of Natural Gas," published by U. S. Fuel Administration, Washington, D. C.

(t) Paper on "Fire Hazard Due to Stray Electric Currents from Single Trolley Electric Railways." Published by National Fire Protection Association.

(u) Compilation of Cases Relating to Off-Set Well Drilling Question.

EXHIBIT "B."

(a) The property of the Kansas Natural Gas Company.
(b) Logan Natural Gas & Fuel Company's Natural Gas Plants in Ohio.
(c) Ashtabula, Ohio, Natural Gas Plant and Manufacturing Gas Plant.
(d) Richmond, Indiana, Natural and Manufactured Gas Plants.
(e) Terre Haute, Indiana, Manufactured Gas Plant.
(f) Bloomington, Illinois, Manufactured Gas Plant.
(g) Chillicothe, Ohio, Water Works Plant.
(h) Richmond, Indiana, Private Electric Plant.
(i) Richmond, Indiana, Municipal Electric Plant.
(j) Lorain, Ohio, Electirc Plant.
(k) Warren and Chautauqua Gas Co. Natural Gas Plants in Pennsylvania.
(l) Manufacturers Company Natural Gas Plants in Pennsylvania.
(m) Fayette County Gas Companies' Natural Gas Plants in Pennsylvania.
(n) Clarksburg, West Virginia, Natural Gas Plants.
(o) All of the Natural Gas Properties of the Hope Natural Gas Company in West Virginia.
(p) All of the Natural Gas Properties of the Peoples Natural Gas Company in Pennsylvania.
(q) Weston, West Virginia, Natural Gas Plant.
(r) The Eastern Oil Company's Natural Gas Properties in West Virginia and Maryland.

EXHIBIT "C."

(a) To the City of Columbus, Ohio, (jointly with Professor E. A. Hitchcock), on the natural gas service rendered it by The Columbus Gas and Fuel Co.

(b) To the Public Utilities Commission of Ohio on natural gas pressure regulators.

(c) On Municipal Natural Gas Plant Failures in Ohio.

(d) On Vital Features of the Natural Gas Industry in the United States.

(e) On Necessary Use and Effect of Gas Compressors on Natural Gas Field Operating Conditions in Ohio.

(f) On House Heating Furnace Efficiencies, with special reference to efficiencies that can be obtained with natural gas as compared with solid fuels.

(g) On Economy of Natural Gas Engine Plants, with special reference to the economics that can be obtained as against other types of prime movers.

(h) On the distinction between natural gas and manufactured gas service.

(i) On Cost Comparison of producer gas and natural gas.

(j) On the feasibility of making common carriers of the main lines of the Kansas Natural Gas Company, the Ohio Fuel Supply Company and the Northwestern Ohio Natural Gas Company.

(k) On gas leakage with special reference to current practice in a large number of manufactured gas plants.

(l) Principles of valuing public utilities.

(m) Reasons why natural gas should not be sold on a sliding scale based on more quantity.

(n) Electrolysis of gas mains from stray currents of electric street railways at St. Louis, Missouri.

(o) Electrolysis of gas mains from stray currents of electric street railways at Springfield, Ohio.

(p) Electrolysis of gas mains from stray currents of electric street railways at Lorain, Ohio.

(q) Electrolysis of gas mains from stray currents of electric street railways at Elyria, Ohio.

(r) When is the drilling of off-set wells for natural gas justifiable.

(s) Definition of what the term "Natural Gas" means.

(t) Reasons for increased cost of the Hope Natural Gas Company.

(u) Reasons for increased cost of the Peoples Natural Gas Company.

(v) Reasons for increased cost of the United Fuel Gas Company.

(w) Natural Gas Rate situation of the Eastern Oil Company.

(x) Natural Gas resources of Northern Montana.

(y) Relation of the Natural Gas Industry to the present military needs of the nation.

(z) Natural gas service at Louisville, Kentucky. (Made for Bureau of Standards, Washington, D. C.)

(aa) Natural Gas Conservation work of the Unted States Fuel Administration, Washington, D. C. This was made as Chief of Natural Gas Conservation.

(bb) Natural Gas waste situation of the Kansas Natural Gas Company.

(cc) Presented and prospective supply of Natural Gas available in Pennsylvania, made for the Public Service Commission of Pennsylvania.

(dd) Value of service as a factor in Public Utility Rates, with special reference to Natural Gas Rates.

(ee) Ownership of Invested Earnings and Invested Surplus in Public Utilities.

(ff) Relative costs of Natural Gas, Soft Coal, Coal Oil, Gasoline and Electricity for cooking, jointly with Anna R. Van Meter and Edna Noble White, of the Department of Home Economics, Ohio State University.

AFFIDAVIT OF H. A. QUAY.

Commonwealth of Pennsylvania,
County of Allegheny, } ss:

H. A. QUAY, being duly sworn according to law, deposes and says:

I am the General Manager of The Manufacturers Light & Heat Company, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, engaged in the producing, and distributing of natural gas, as hereinafter described.

For the past 22 years I have been engaged in the natural gas business in the Appalachian fields, and am familiar with all the sources of supply of natural gas to be found in Pennsylvania, Ohio and West Virginia, and with the manner of distributing the same in these various States.

The plant of The Manufacturers Light & Heat Company as it now exists is the result of a gradual extension of the lines of the company, which was many years ago a rather small company, but by gradual extensions, purchases and amalgamations with other companies it has grown to its present proportions.

The Manufacturers Light & Heat Company now owns and operates 953.315 miles of main transmission lines, varying in diameter from 36 inches to 1 inch, which transmission lines are laid for the purpose of transporting gas to and from the States of Ohio, West Virginia and Pennsylvania in interstate commerce. They cross and recross the State lines and transmit gas in all directions from the sources of supply to the cities,

towns, municipalities, etc., to which the gas is furnished. It also owns 1,335.15 miles of distributing lines of 16 inches diameter and less, which distributing lines distribute the gas to the various consumers in the various municipalities served by the company. The company also owns and operates nine compressor stations located at various places upon these main transmission lines, which compressor stations compress the gas so that it will pass from the fields to the sources of supply.

The sources of supply of The Manufacturers Light & Heat Company are located in the States of Ohio, Pennsylvania and West Virginia. The company owns leaseholds in all three States and has drilled and is operating wells upon said leaseholds to the following extent: In West Virginia, 437 wells; in Pennsylvania, 748 wells; and in Ohio, 14 wells. In addition thereto it purchases large quantities of gas from producers in these States, and, as hereinafter stated, from the Hope Natural Gas Company.

The Pennsylvania and Ohio gas fields were first found and operated, and have become almost exhausted. They are progressively and rapidly nearing exhaustion, whereas the West Virginia fields, being the latest to be developed, are at present the main source of supply. On account of the decline in rock pressure it is necessary to drill a largely increased number of wells to produce the same volume of gas which in the early development of the fields was produced by fewer wells.

During the year 1918 the company produced, procured and distributed 29,517,660,000 cubic feet of gas, which it secured in the various States as follows:

West Virginia,	19,808,959,000 cu. ft.
Pennsylvania,	9,624,477,000 cu. ft.
Ohio,	84,224,000 cu. ft.

and which it distributed as follows: :

Pennsylvania,	17,497,500,000	cu. ft.
Ohio,	6,371,577,000	cu. ft.
West Virginia,	5,648,583,000	cu. ft.

The Hope Natural Gas Company, a company engaged in producing natural gas exclusively in West Virginia, has contracted to deliver to the Manufacturers Light & Heat Company, at a point in West Virginia [redacted], sufficient gas to supply all of the demands of the domestic consumers of the latter company, so that in effect all of the domestic consumption of the Manufacturers Light & Heat Company is supplied from West Virginia. The Manufacturers Light & Heat Company transports this gas through pipe lines through the State of West Virginia into the States of Pennsylvania and Ohio.

The consumers of the Manufacturers Light & Heat Company may be roughly divided into three classes:

First: Domestic consumers, who use the gas for cooking, heating and lighting in private residences and the like.

Second: Industrial consumers, who use the gas in industrial plants.

Third: Municipal consumers, consisting of municipalities, school districts and public institutions, who use gas for street lighting, lighting and heating public buildings, cooking in public institutions, etc.

The Manufacturers Light & Heat Company has consumers of all three classes in the States of West Virginia, Pennsylvania and Ohio, divided roughly as follows:

	Industrial	*Domestic*	*Municipal*	*Misc.*	*Total*
Pennsylvania,	354	69,895	612	420	71,281
Ohio,	195	25,531	144	61	25,931
West Virginia,	152	10,095	149	399	10,795
Grand Total,	701	105,521	905	880	108,007

In these three States it serves with natural gas a population of over 600,000, divided roughly as follows:

West Virginia,	50,000
Pennsylvania,	400,000
Ohio,	150,000

and serves consumers in the municipalities listed on Exhibit "A," hereto attached.

On account of the fact that natural gas is the most valuable and economical domestic fuel ever found or developed by mankind, and on account of the fact that domestic consumers have so equipped their residences as to be exclusively dependent upon the same for fuel for heating and cooking, it has been and is the policy of this company to conserve its supply of natural gas for the use of such domestic consumers, only its surplus gas being delivered to industrial consumers at times when the domestic consumption does not exhaust the supply. In the year 1917 the company ceased supplying any gas whatsoever to industrial consumers as a public service, and withdrew its classification schedules and rates for industrial consumption, and although it now sells a considerable quantity of gas to industrial consumers under private contract, it sells the same only when this gas is not being demanded by domestic consumption, and the greater portion of these sales for industrial purposes

is made to industrial plants employing appliances and using processes which cannot be adapted to the use of any other fuel; but in times of cold weather, when the domestic consumption is great, even these are refused a supply.

The domestic demand is a varying demand, increasing enormously during cold weather, and it is the purpose and policy of this company to keep on hand at all times as far as practical a supply of gas to meet the maximum demand of domestic consumers, which is hereinafter called the "peak load."

The peak load is the maximum demand in cold weather and exceeds the normal demand sometimes by as much as 1000 per cent. The maximum peak load comes during the winter months. During the summer months the company has a surplus of gas which it distributes to industrial consumers as aforesaid.

I have given considerable thought and attention to the effect of the statute recently passed by the State of West Viriginia, of which complaint is made in these proceedings. The following are the inevitable results of its operation:

This company does not have and cannot secure by any expenditure of money a supply of gas sufficient to meet all of the demands of all consumers. As hereinbefore stated, the company has found it necessary to cut off and limit industrial consumption.

The domestic demands in all three States are constantly increasing on account of the increase in the population of the territory supplied.

This rising domestic demand can only be met by a curtailment of industrial demands.

The company has in the past met this rising demand by curtailment of industrial demands in all States, and by withdrawing, as stated, its industrial classifica-

tion, and it no longer holds itself out as a public utility to supply industrial consumers.

The said statute requires that all demands in the State of West Virginia be met—industrial and other as well as domestic—before any gas can be exported therefrom, and will prevent this company from curtailing the supply to the industrial and other consumers in the State of West Virginia.

Under these circumstances all of the gas produced in West Virginia must be applied to the uses of West Virginia consumers, and they can and will use the whole amount of gas produced in said State, and the exportation of any gas for the use of domestic consumers in the other States will in effect be prohibited.

The foregoing will result even under present conditions. The purpose and effect of the Act is to secure a supply of gas at all times for all consumers in West Virginia. Under these circumstances the demands of industrial consumers in West Virginia will inevitably increase. Having the assurance of an adequate supply of gas, old plants which are now using coal or other fuel will return to the use of natural gas, and thus all the gas produced in West Virginia will be consumed in West Virginia, which is the purpose and effect of the Act.

The Act will operate as aforesaid upon the Manufacturers Light & Heat Company, with its present consumers in its present fields of supply, regardless of the provision giving the Public Service Commission power to compel this company to supply other companies having a deficiency in gas.

From my knowledge of the conditions of the companies operating in the territory in West Virginia supplied by The Manufacturers Light & Heat Company, I know of certain supplying companies which have insuf-

ficient sources of supply, and under the terms of this Act they can and will require The Manufacturers Light & Heat Company to immediately turn over to them all of the gas which is now being exported by said company from West Virginia into Pennsylvania and Ohio.

The gas produced in Pennsylvania and Ohio is totally insufficient to supply even the small percentage of the domestic demands in these States, so that the inevitable result of this Act will be to make totally insufficient and inadequate the service of this company to its domestic consumers in the States of Ohio and Pennsylvania, and compel it to abandon its efforts in this direction.

The domestic consumers will therefore be compelled to remove and destroy the gas-burning appliances which they have and install other appliances, at a cost of hundreds of millions of dollars. The magnitude of the task is such as to make it impossible of completion before the cold weather arrives, and during the winter of 1919-20 the domestic consumers in Pennsylvania and Ohio upon the lines of this company will have no gas with which to heat their dwellings or cook their meals, and will suffer great inconvenience and injury to their health.

The effect of this Act will be to destroy the business of The Manufacturers Light & Heat Company. Its plant and equipment are designed for the purpose of distributing gas in all three States, and its compressor stations are located at strategic points on the lines to accomplish this result. Its lines are designed in size and arrangement and laid with this purpose in view, and the same will become practically valueless for this purpose when the interstate transportation of gas is made impossible and the value of the same reduced to junk prices.

The total investment of this company approximates

$28,000,000.00. It has invested in the States of Ohio and Pennsylvania approximately $18,000,000.00, which will have a scrap value of not to exceed $4,600,000.00, or twenty per cent. of its present value. All the distributing system and lines laid in the municipalities could not profitably be lifted, as the expense of taking up the same would be more than the price that could be obtained therefore.

H. A. QUAY.

Sworn and subscribed to before me this 8th day of May, 1919.

ANNA L. NORTON,
[SEAL] *Notary Public.*

My commission expires February 21st, 1923.

EXHIBIT "A."

PENNSYLVANIA.

Aliquippa	Edgeworth	Midway
Ambridge	Ellwood City	Monaca
Avalon	Emsworth	Mount Lebanon
Avella	Enlow	Mount Oliver
Baden	Fair Haven	New Brighton
Banksville	Fair Oaks	New Castle
Beallsville	Fallston	Neville Island
Beaver	Federal Station	Noblestown
Beaver Falls	Freedom	Oakdale
Bellevue	Forest Grove	Oak Station
Ben Avon	Glasgow	Option
Ben Avon Heights	Glendale	Pittsburgh
Blair	Glenfield	Rennerdale
Bridgeville	Glen Osborne	Rochester

Buffalo
Bulger
Burnstown
Canonsburg
Carrick
Castle Shannon
Clairton
Cliff Mines
Conway
Coraopolis
Coraopolis Heights
Dormont
East Rochester
Eau Claire
Economy
Georgetown
Greentree
Groveton
Haysville
Hazel Dell
Hickory
Houston
Knoxville
Koppel
Lawrence
Leetsdale
Library
Marianna
McDonald
McKees Rocks
Sewickley
Sewickley Heights
Scenery Hill
Smiths Ferry
South New Castle
St. Clair
Stoops Ferry
Sturgeon
Washington
Waynesburg
West Bridgewater
West Middletown
Wilson
Woodlawn

OHIO

Bellaire
Bridgeport
Brilliant
Clarington
Costonia
Duffey
East Liverpool
Ekeyville
Empire
Grover
Hannibal
Knoxville
Martins Ferry
Mingo Junction
New Alexandria
Rayland
Richmond
Sardis
Shady Side
Steubenville
Toronto
Wellsville
Wintersville
Yorkville

WEST VIRGINIA.

Benwood
Blacksville
Brooklyn
Cameron
Chester
Congo
Fairview
Follansbee
Glendale
Glen Easton
Glenova
Holidays Cove
Hundred
McMechen
Middlebourne
Moundsville
Newell
New Cumberland
New Martinsville
Sedalia
Warwood
Wellsburg
Weirton
West Liberty
Wheeling

AFFIDAVIT OF LESLIE B. DENNING.

State of Pennsylvania,
County of Allegheny, } ss:

Before the undersigned, a Notary Public in and for said State, personally appeared LESLIE B. DENNING, who, by me first duly sworn, deposes and says:

That he is now and has been for the past seventeen (17) years directly connected with the natural gas industry as Legal Counsel and as Operating Executive. That for the past seventeen (17) years he has represented natural gas companies in the State Courts of Ohio, West Virginia, Illinois and Texas; and for the past eight (8) years has represented natural gas companies before the Public Service Commissions of Ohio, West Virginia, and Pennsylvania, particularly in proceedings connected with rate making, involving engineering, operating and accounting details. That he has made a special study of all matters connected with the production, transportation and distribution of natural gas.

Affiant further says that he now is, and for the past four (4) years has been, President of the Lone Star Gas Company, operating transportation lines and transporting natural gas from the State of Oklahoma into the State of Texas and delivering same to consumers in the Cities of Dallas, Fort Worth, and other cities and towns in the State of Texas. That he now is, and has been for some time, Assistant to the President and Secretary of the Ohio Fuel Supply Company, which corporation owns over three thousand (3,000) miles of main trunk natural gas transportation lines in the State of Ohio, one of which is an eighteen-inch line extending from Sugar

Grove, Ohio, to the line between the States of Ohio and West Virginia, where it is directly connected to a similar size line owned and operated by the United Fuel Gas Company, which latter company delivers natural gas produced by it in the State of West Virginia to said Ohio Fuel Supply Company. That said The Ohio Fuel Supply Company supplies natural gas to approximately sixty-one thousand, five hundred and seventy (61,570) consumers directly, and approximately ninety-five thousand, five hundred (95,500) consumers indirectly through other distributing companies, said consumers being residents of the Cities of Cincinnati, Norwood, London, Xenia, Columbus, Springfield, Zanesville, and other cities, towns and villages in said state, the total of municipalities so supplied by said company being one hundred and forty-seven (147). That the total number of persons, residents of Ohio, so supplied directly and indirectly by said company is approximately seven hundred and eighty-five thousand (785,000). A statement of the municipalities served by The Ohio Fuel Supply Company is hereto attached, marked "Exhibit A," and made part hereof. That said The Ohio Fuel Supply Company procures approximately forty per cent. of its total supply of natural gas for its said consumers from the State of West Virginia.

That affiant now is, and has been for some time past, Secretary and Treasurer of the Northwestern Ohio Natural Gas Company, which company supplies approximately sixty thousand (60,000) consumers in the City of Toledo, Ohio, and adjacent municipalities, and that said company has no natural gas fields or natural gas supply of its own, but is entirely dependent upon natural gas received from the State of West Virginia, purchased from other companies under contracts entered into before the adoption of the so-called Steptoe Bill by the

State of West Virginia (which is the Statute complained of in this proceeding), and which contracts by the terms thereof will not expire for many years.

Affiant further says that he is, and has been for some time past, Vice President and General Manager, directly in charge of operations of the Fayette County Gas Company, which company owns natural gas distributing plants and supplies consumers in the Cities of Connellsville and Uniontown and other muniicpalities in the State of Pennsylvania. That said company has a very limited supply of natural gas in its own fields and is almost wholly dependent upon a supply of natural gas produced in the State of West Virginia and delivered to it by the Hope Natural Gas Company under the terms of a certain contract of May 1, 1910, by which the said Hope Natural Gas Company obligated itself to furnish the Fayette County Gas Company with all the natural gas which the said Fayette County Gas Company may need for its domestic consumers. That the total number of people, residents of the State of Pennsylvania, so supplied with natural gas by the said Fayette County Gas Company is approximately sixty thousand (60,000).

Affiant further says that the Ohio Fuel Supply Company has been and now is able to supply the needs of its domestic consumers by drawing to the utmost upon the available supply produced and delivered to it in the State of West Virginia by the United Fuel Gas Company, but affiant says that should the amount of natural gas now being delivered to it and available for delivery in the State of West Virginia be materially impaired or diminished it would be impossible for said Ohio Fuel Supply Company to furnish the amount of natural gas necessary to meet the demands of its consumers, particularly during periods of extreme cold weather, and the comfort, health and welfare of said consumers, all resi-

dents of the State of Ohio, will be very materially affected.

Affiant further says the consumers of the Northwestern Ohio Natural Gas Company in Ohio and Fayette County Gas Company in Pennsylvania being entirely dependent upon gas produced in the State of West Virginia and transported in interstate commerce to the respective States of Ohio and Pennsylvania, that any diminution or impairment of the volume or amount of natural gas so received from the State of West Virginia will very materially affect the comfort, health and welfare of the consumers of said companies.

Affiant says that the winter months of years 1918 and 1919 last past were above the mean normal temperature in the cities and towns supplied by the said companies. Notwithstanding the unusual warmer weather, both the Northwestern Ohio Natural Gas Company and the Fayette County Gas Company were unable to supply the normal demands of their domestic consumers during said winter months and were unable during extreme cold weather periods to furnish an adequate supply for their consumers' needs.

Affiant says that each of the companies with which he is connected classified its consumers into two general divisions:

(A) Domestic consumers, which primarily includes all uses of natural gas for lighting, heating and cooking purposes in dwellings, but also includes certain other uses of an industrial nature, such as heating for power plants in hotels, office and flat buildings, and gas engines where said gas engines are used as the sole or primary source of power.

(B) Industrial consumers, which implies generally all consumers not included in the domestic class.

That said companies have voluntarily assumed the obligation as Public Service Corporations to supply such reasonable quantity of natural gas as may be required to meet the needs of its various domestic consumers who are wholly dependent upon them as a source of light and heat, and that the larger proportion of their many consumers have no other source from which to procure light and heat. Said companies do not and never have recognized any obligation or duty on their part, and have never voluntarily assumed the obligation and duty, as a part of their functions as Public Service Corporations, of supplying any gas whatever to industrial consumers for industrial purposes, but on the contrary do now and always have supplied such consumers only from such quantity of natural gas as they may have at any particular time over and above the quantity of natural gas required to meet the demnds of their respective domestic consumers. Said companies have always reserved and maintained the right at any time to summarily and without prior notice to such industrial consumers, discontinue and cut off the supply of natural gas to such industrial consumers when in their judgment such action is necessary to protect the supply of natural gas to their domestic consumers. This provision, giving the said companies the right to cut off the supply of natural gas to industrial consumers, is contained in all rate schedules and classifications filed with the Public Service Commissions of the States of Ohio and Pennsylvania, and the same have been approved and confirmed by the Public Service Commissions of said states, and the said Public Service Commissions have enforced the application thereof, even to the extent of requiring the discontinuance of supply to factories producing munitions of war during the war period, where the amount of available gas was insufficient to supply the domestic needs

and at the same time supply the factories producing war materials.

Affiant further says that if the volume of gas necessary to supply the consumers of said Northwestern Ohio Natural Gas Company and Fayette County Gas Company is impaired or diminished by being diverted and restricted to industrial use in the State of West Virginia, as required by said Statute herein complained of, that the plants and property of both of the said companies will be practically destroyed and the same will be worth no more than their salvage or junk value.

Affiant further says that the investment of the Ohio Fuel Supply Company, the Northwestern Ohio Natural Gas Company, and the Fayette County Gas Company in the natural gas industry is approximately Forty Million ($40,000,000.00) Dollars; that the consumers of the said companies have invested an average of One Hundred ($100.00) Dollars each in house piping, fixtures, appliances, etc., which would make the approximate investment on the part of said consumers Fifteen Million, Seven Hundred and Seven Thousand ($15,707,000.00) Dollars; that a dwelling equipped for and being supplied with natural gas service has a rental value of at least Twenty-five ($25.00) Dollars per year more than a dwelling not so equipped; that the taxable value or wealth in property of the communities supplied with natural gas service by said companies is not less than Sixty Million ($60,000,000.00) Dollars over and above what the same would be without natural gas service.

Affiant says that the value of natural gas service is:

(A) Its instantaneous character, and

(B) Its cheapness as compared with other and competitive fuels.

That it is the ideal source of light and heat in the dwelling, and that no other known source of light and

heat can be obtained, even under normal pre-war prices, at twice the present selling price of natural gas. There must be a continuous, instantaneous service, i. e., the householder must be able any hour of the day or night, any day of the year, to use such quantity as he may de... The Gas Company has no means of knowing when or in what quantity the domestic consumer will demand service, but must stand ready at all times to furnish the service. If the domestic consumer cannot rely upon this continuous, instantaneous service the service is rendered valueless to him, i. e., if the consumer can obtain a full supply one day, fifty per cent. supply the next, none at all the next, and fifty per cent. the next, and so on, it is a breaking of the continuous and instantaneous service, and the service which he receives is unsatisfactory and he will be compelled to and will substitute some other more reliable commodity. For these reasons the requiring of physical connection with other companies and the supplying of natural gas to other companies by those companies now producing natural gas in West Virginia and supplying natural gas in inter-state commerce to Ohio and Pennsylvania will inevitably impair and destroy this instantaneous and continuous service and impair and destroy the investment by the domestic consumers in the States of Ohio and Pennsylvania, and impair the value of their property at least to the amount hereinbefore stated.

The additional cost necessary to transform natural gas fixtures and appliances into other methods of heating and cooking would amount to very many millions of dollars, and in affiant's judgment it would be impossible to make the necessary changes before cold weather, because the necessary labor and materials cannot possibly be obtained; and the inevitable result will be great inconvenience and intense suffering during the cold

weather should the supply of gas be materially reduced by reason of being diverted to other use in the State of West Virginia under the provisions of the so-called Steptoe Bill, herein complained of.

LESLIE B. DENNING.

Subscribed and sworn to before me this 7th day of May, A. D. 1919.

WALTER W. RATHBUN,
[SEAL] *Notary Public in and for said County and State.*

My commission expires Feby. 21, 1923.

EXHIBIT "A."

MUNICIPALITIES SUPPLIED BY THE OHIO FUEL SUPPLY COMPANY WITH NATURAL GAS.

Academia	Corning	Horns Mills
Allensville	Carbon Hill	Hamden
Alexandria	Coalton	Haydenville
Appleton	Chester	Hemlock
Belmont	Can Winchester	Junction City
Bethesda	Carroll	Jacksonville
Barnesville	Covington	Jackson
Byesville	Drakes	Johnstown
Belle Valley	Derwent	Ludington
Bangs	Dresden	Logan
Brandon	East Richland	London
Beam City	East Fultonham	Lore City
Bethany	Enterprise	Lock
Bremen	Fredericktown	Lancaster

Buckingham
Buckeye Lake
Baltimore
Basil
Beattytown
Buffalo
Cincinnati
Columbus
Cambridge
Caldwell
Colfax
Claysville
Coal Ridge
Croton
Crooksville
Cedarville
New Straitsville
Nelsonville
New Albany
New Carlisle
North Hampton
Nashport
North Baltimore
Norwood
Old Washington
Pomeroy
Pickerington
Pleasantville
Perrysville
Pleasant City
Pt. Pleasant
Perrysburg
Piqua
Quaker City
Frazeysburg
Fultonham
Franklin
Five Points
Gambier
Germantown
Groveport
Gahanna
Gallipolis
Glenroy
Glouster
Gore
Hooker
Howard
Haysville
Hanover
Rushville
Rendville
Rockbridge
Rix Mills
Roseville
Shawnee
Somerton
So. Pleasantville
Sugar Grove
Sedalia
South Charleston
Sharonville
St. Clairsville
Somerset
Spencer
Senecaville
Sarahsville
South Zanesville
Miltonburg
Morristown
Monroe
Millerstown
Murray City
Middleport
Miamisburg
Millwood
Martinsburg
Mifflin
McArthur
Mt. Sterling
Mt. Vernon
Maumee
Middletown
New Lexington
Springfield
Sidney
Trimble
Thurston
Tremont City
Trinway
Troy
Urbana
West Rushville
Wellston
Waterloo
West Jefferson
Wilberforce
West Carrollton
White Cottage
Xenia
Zanesville

AFFIDAVIT OF J. C. McDOWELL.

State of New York,
City and County of New York, } *ss*:

J. C. McDOWELL being duly sworn deposes and says:

I am a Consulting Oil & Gas Engineer and my office is in the Farmers' Bank Building, Pittsburgh, Pa. I am at present retained by Henry L. Doherty & Company to take charge of their natural gas interests. I am a member of the Natural Gas Association of America and have served two years as President of that Association, a member of the American Gas Institute, of the American Mining Congress, the Engineers' Society of Western Pennsylvania and the American Pretroleum Institute. During the war I was and in fact still am a member of the Advisory Board of the United States Fuel Administration representing the Natural Gas Industry.

My interest in the natural gas industry began in the infancy of the industry. I was engineer in charge of construction for the National Transit Company beginning in the year 1881 and built the first large system of lines for transportation of natural gas. This supplied power stations of the National Transit Company and the City of Bradford, the City of Olean, Wellsville, New York and many other towns and cities in that region. I continued in the employ of the National Transit Company until early in the year 1899 and before I left the Company was instrumental in the organization of the East Ohio Gas Company. The National Transit Company and the East Ohio were both subsidiar-

ies of the Standard Oil Company of New Jersey and I was in 1899 in charge of the Right of Way, Damages and Claims Department of the Standard Oil Company. In that capacity I secured the rights of way from the Ohio River to Canton, Akron and Massillon for the lines of the East Ohio Gas Company and secured the franchises in those cities for the distribution of natural gas. I left the employ of the National Transt Company in 1899 and engaged in the consolidation of natural gas companies in and about Pittsburgh into the Philadelphia Company and became Vice President and General Manager of that Company and President of the Allegheny Heating Company supplying natural gas in the City of Allegheny. I and others associated with me acquired territory in West Virginia and organized the Tri-State Gas Company and built and acquired a system of lines connecting the field with the cities of Steubenville, Wellsville and the surburban cities of the District of Pittsburgh. I was largely interested financially in this Company as well as in the Philadelphia Company. I and my associates continued in control of the Tri-State until we sold it to the Manufacturers' Light & Heat Company by which its properties are still owned. While I was with the Philadelphia Company about the year 1900 I in association with some others acquired the -pipe line systems that supplied gas to Connellsville and Uniontown and several other cities in that vicinity obtaining gas from the old Murraysville field in Westmoreland County. We organized the Fayette Company and acquired producing properties in West Virginia which we connected by pipe line with the systems supplying the towns above mentioned. I remained as Manager of the Philadelphia Company until 1901. Under my direction the lines of the Company were enlarged and extended into West Virginia and large natural gas hold-

ings were acquired. I am no longer interested either in the Fayette Company or in the Philadelphia Company. After I left the Philadelphia Company I joined with Theodore Barnsdell and others in organizing the Union Natural Gas Corporation which took over the control of several smaller natural gas companies supplying cities and towns in Central Ohio. Under my management the Union Natural Gas Company enlarged and extended its system to some forty cities in Central Ohio and acquired large holdings of producing property in West Virginia. I was instrumental in organizing the Reserve Gas Company to which the holdings of the Union in West Virginia were transferred and the Connecting Gas Company through which gas from West Virginia was supplied to the Union Company at Sugar Grove, Ohio. About 1906 I and my associates became interested in natural gas properties in Kansas and organized the Kansas Natural Gas Company building an extensive system of lines from the State of Oklahoma northward supplying Kansas City, Wichita, St. Joseph, Atchison and many other cities in that region and also a pipe line system to the Joplin, Missouri, lead district, supplying Joplin and other cities in that vicinity. I was Vice President and General Manager of this Company for several years. During this same period I and my associates became interested in natural gas properties in Canada and organized the Dominion Natural Gas Company and constructed extensive lines throughout the Province of Ontario. I and my associates have also organized the Southern Ontario Pipe Line. I have been President of these two companies since they were organized. I was at one time retained as Consulting Engineer by the Columbia Gas & Electric Company and supervised the construction of an eighteen inch line connecting that Company's producing properties in South-

western West Virginia with the City of Cincinnati. I was also about the same time retained as Consulting Engineer by the LaClede Gas Company of St. Louis to make surveys and preparations for the construction of a line from Caddo, Louisiana, to St. Louis. This scheme was finally abandoned. I was afterwards retained as Consulting Engineer for the Arkansas Natural Gas Company and made complete surveys, plans and specifications for the construction of a line from Caddo to Little Rock. About 1913 I became Consulting Engineer for Henry L. Doherty & Company and have had general charge of their natural gas interests since that time. Their interests include the Wichita Natural Gas Company supplying Wichita, Hutchinson, Newton, Winfield, Wellington and other cities in western Kansas and the Quapaw Natural Gas Company supplying localities in northeastern Oklahoma, also the Wichita Pipe Line Company, the South Oklahoma Gas Supplying Company, the Medina Gas Company and the Columbia Natural Gas Company supplying gas to Mansfield, Lima, St. Marys and other cities in Ohio as well as the City of Columbus. I am President of all six of these companies. I have been thoroughly familiar for many years with the natural gas business in southwestern Pennsylvania and with the various companies supplying the consumers in that region with gas and with the sources from which these companies obtain their supplies. The principal companies supplying consumers in southwestern Pennsylvania are the Philadelphia Company, Manufacturers' Light & Heat Company, Peoples' Natural Gas Company and the Fayette County Gas Company and the Carnegie Natural Gas Company. The Carnegie Natural Gas Company is a subsidiary of the Carnegie Steel Company and is principally engaged in supplying natural gas to that Company. As I have previously

stated I helped to consolidate the properties of the Philadelphia Company and organized the Fayette Company and also organized the Tri-State Company whose properties are now part of the plant of the Manufacturers' Light & Heat Company. I have at all times kept myself generally informed concerning the operations of these companies and also concerning the operations of the Peoples' Natural Gas Company, a subsidiary of the Standard Oil Company with which I was connected for more than eighteen years.

Besides the Companies supplying Pennsylvania the principal companies that supply consumers in other cities with gas obtained from West Virginia fields are the East Ohio Gas Company, the Columbia Gas & Electric Company, the Union Natural Gas Company and the Ohio Fuel Supply Company all of which companies supply Ohio, the Cumberland Pipe Line Company which supplies Cumberland, Maryland, and a company supplying Louisville, Kentucky. I have previously stated the connections I have had with the East Ohio Gas Company, the Union Natural Gas Company and the Columbia Gas & Electric Company. The various companies I have mentioned supplying consumers in other states with gas obtained from the fields of West Virginia supply more than 750,000 domestic consumers outside of West Virginia, that is to say, they serve a population of several millions. I estimate that the investment in the pipe lines by which these companies obtain their supply of West Virginia gas is in excess of $200,000,000.

I have for many years kept in touch with the production of gas in West Virginia and kept myself informed as to the amounts of gas supplied from West Virginia for use in Pennsylvania and Ohio. I have also kept myself informed concerning the industrial develop-

ment in West Virginia and am in a position to form a very fair judgment of the fuel requirements of the industries established in the state. This is particularly true in respect to the industrial plants in the cities of Wheeling, Clarksburg, Parkersburg, Huntington and Charleston. For some years I have kept close track of the relation between the requirements of domestic consumers of natural gas in southwestern Pennsylvania and the amount of gas available for their supply. I have also made a close and careful study of the use of gas for industrial purposes as compared with the other forms of fuel and I have made a similar study of the use of gas and other forms of fuel for domestic purposes. The number of domestic consumers of natural gas in southwestern Pennsylvania including Pittsburgh is over 250,000. Each consumer on the average represents a family of five so that 250,000 domestic consumers would represent a population of 1,250,000. The companies which supply this population are the companies which I have mentioned above, to wit, the Philadelphia Company, the Manufacturers' Light & Heat Company, the Peoples' Gas Company and the Fayette Company. Some of these companies, and I believe all of them obtain some gas from the Pennsylvania fields but at least seventy-five per cent. of the natural gas which they supply comes from West Virginia and there is no other possible source from which the amount necessary to supply the requirements of their consumers can be obtained. They are already drawing from the Pennsylvania fields substantially all that can be gotten from them. The total amount of natural gas which the distributing companies in southwestern Pennsylvania have available including all the gas obtained by them from West Virginia is required in cold weather for the supply of their domestic consumers. Even in as mild a winter as the

winter last past there were days in which the total available supply of gas was insufficient for the supply of the domestic consumers, after all or substantially all industrial consumers had been cut off. In the previous winter the same was true in a very much greater degree so that there were many periods during which the supply of gas to domestic consumers was seriously curtailed. This was not confined to one or two companies or to one or two localities but it was true of all the companies supplying consumers in southwestern Pennsylvania and in all localities. The result was not only wide spread discomfort but much suffering. As all the natural gas now obtainable from West Virginia by companies supplying consumers in Southwestern Pennsylvania is necessary to meet the requirements of those consumers in cold weather and is frequently insufficient to meet their requirements it necessarily follows that any diminution of the supply obtainable from West Virginia would affect the supply of Pennsylvania consumers.

All of the natural gas companies have for several years given priority of service to domestic consumers. Very few of them have sold gas for industrial purposes at reduced prices during the winter season. The Fuel Administration approved the action of the gas companies in giving priority to domestic consumers. On account of its heating qualities, cleanliness and convenience natural gas is peculiarly adapted for domestic use. The fact that the amount used can be regulated at will makes its use very economical in comparison with other forms of fuel. At the price at which it is sold for domestic use it is much the cheapest form of fuel and would be cheaper than coal even if the prices were increased fifty per cent. The price to domestic consumers generally prevailing in the territory supplied from West Virginia fields is from thirty to thirty-five cents a

thousand cubic feet. The aim of the natural gas companies is to be in a position to supply the maximum demand of their domestic consumers. The demand of domestic consumers during January is about six times their requirements for July and the demand for the coldest day in January is about twelve times the requirements for a July day. The supply of natural gas must at all times except in cold weather be in excess of the requirements of domestic consumers otherwise in cold weather the supply will be insufficient. The excess is available for use for industrial purposes but the domestic consumption must be given priority and the industrial consumption cut off in cold weather. In many cases the houses of the domestic consumers are constructed without any provision for heating or cooking otherwise than by natural gas and to make provision for heating and cooking by other means would require a substantial reconstruction of the houses. A substantial shortage in the supply of gas for domestic purposes in the winter months would not only cause great distress and suffering to the consumers but in many cases would result in permanent abandonment in the use of natural gas and the permanent substitution of coal or other forms of fuel. The general practice of natural gas companies is to regard the use of natural gas for domestic purposes as its primary use. The use of it for general industrial purposes when it might be conserved for domestic purposes is economically wasteful and indefensible. There are very few industrial plants that cannot use other forms of fuel in place of natural gas. The general practice of cutting off natural gas from industrial plants in cold weather has made it necessary for nearly all of them to make provision for such use and they have made such provision. The value of natural gas for general industrial purposes is only a frac-

tion of its value for domestic use. For general industrial purposes 20,000 cubic feet of natural gas are equivalent to one ton of bituminous coal, the gas being used according to the most approved methods. To be as cheap as coal at $3.00 a ton natural gas must therefore sell at fifteen cents a thousand cubic feet. It must be as cheap as coal in order to be available for general industrial use.

There are a great many industrial plants in West Virginia which use natural gas during the greater part of the year but use other forms of fuel in cold weather when all the available gas is required to meet the demand of domestic consumers. The aggregate amount of gas used by these plants is very large and if their requirements had to be met in cold weather they would absorb a very great proportion of the gas available for domestic consumers in other states. Furthermore if gas could be had for industrial use in West Virginia at prices which the industries could afford to pay there can be no doubt that the use of gas for industrial purposes would be very greatly increased and that gas available for the use of domestic consumers in other states would be correspondingly reduced.

The manufacture of lamp black has in the past been very extensively carried on in West Virginia and the amounts of natural gas consumed have been very great. Natural gas used with the best appliances burns without making any deposit of carbon whatever. In its use for carbon black manufacture the object is to form carbon and the more wastefully it is burned the greater the quantity of carbon produced. There are lamp black plants still in West Virginia which would undoubtedly be operated if natural gas could be had at sufficiently low prices. The economic waste involved in the use of natural gas for such purposes as these is apparent.

In my opinion the public interest requires that natural gas should as far as possible be conserved for domestic use and should be used for general industrial purposes only to the extent that the production necessary to meet the maximum demand for domestic consumption results in a surplus available for industrial uses when the domestic demand is below the maximum.

I wish to say in conclusion that I have no interests in any of the natural gas companies supplying consumers in southwestern Pennsylvania or in any of the companies producing gas in West Virginia.

J. C. McDOWELL.

Sworn to before me this 2nd day of May, 1919.

GEORGE W. MULLER,
[SEAL] *Notary Public.*

Notary Public, Kings County. Certificate filed in New York County. Kings County Register's No. 185. Kings County Clerk's No. 51. New York County Register's No. 10224. New York County Clerk's No. 250. Term Expires March 30, 1920.

State of New York,
County of New York, } *ss:*

No. 14513

I, William F. Schneider, Clerk of the County of New York, and also Clerk of the Supreme Court for the said County the, same being a Court of Record, *do hereby certify* that George W. Muller whose name is subscribed to the Certificate of the proof or acknowledgment of the annexed instrument, and thereon written, was, at the time of taking such proof and acknowledgment, a

Notary Public acting in and for said County, duly commissioned and sworn, and authorized by the laws of said State to take the acknowledgments and proofs of deeds or conveyances for land, tenements or hereditaments in said State of New York. And further ,that I am well acquainted with the handwriting of such Notary Public, and verily believe that the signature to said certificate of proof of acknowledgment is genuine.

In Testimony Whereof, I have hereunto set my hand and affixed the seal of the said Court and County the 2nd day of May, 1919.

WM. F. SCHNEIDER,
Clerk.

[SEAL]

AFFIDAVIT OF JOHN B. TONKIN.

State of Pennsylvania,
County of Allegheny, } *ss:*

Before me, a Notary Public in and for said County, personally appeared JOHN B. TONKIN, who being by me first duly sworn according to law, makes oath and says:

That he resides in Pittsburgh, Pennsylvania, and is Vice President and Manager of The Peoples Natural Gas Company, hereinafter designated "The Peoples Company;" that the principal business of said company is a public utility business consisting in the distribution of natural gas and its service to domestic consumers, that is to say, householders and users of natural gas for heat, light and cooking; in addition, the company sells surplus natural gas when it has any available, for fuel in boilers and furnaces and manufacturing plants, but does not hold itself out as being engaged in a public service business in so doing; the surplus gas is only such gas as it may have after first preferring and serving its domestic consumers.

The Peoples Company directly serves consumers in seventy-two cities and towns, a list of which is attached to this affidavit, marked "Exhibit List of Cities and Towns;" they are situate between the Ohio state line on the west and the city of Altoona on the east, and the West Virginia state line on the south and towns in Clarion County on the north, and the city of Pittsburgh is the largest. The company also sells some gas to other distributing companies, one of which serves Johnstown in Southern Pennsylvania, and the other supplies gas to cities in Northwest Pennsylvania, including Bradford,

Oil City, Meadville, Titusville and Franklin. The number of consumers directly served is 80,000, and the number indirectly served about 50,000; during the year 1918 the company sold 33,329,604,000 cubic feet of natural gas, all in Pennsylvania, of which supply 18,209,928,000 cubic feet, or 54 per cent., was gas produced in West Virginia and carried by pipe lines in continuous traffic and commerce for transmission and sale to consumers of The Peoples Company in the Pennsylvania cities above described.

During the cold winter days of 1918 the company did not have any surplus gas for sale to industrial or manufacturing consumers and did not have sufficient gas to meet the requirements at all times of its domestic consumers.

The amount of gas which the company had available from Pennsylvania production on a cold winter day during the winter of 1917-1918 and the winter of 1918-1919 was not to exceed 40,000,000 cubic feet, whereas the requirements of its domestic consumers alone on a like day was in excess of 80,000,000 cubic feet. The domestic consumers of the company, therefore, to the extent of 130,000 consumers, or a total population of 650,000 are dependent upon natural gas which the company secures from West Virginia, and without which large numbers of its cities and towns would have to be shut off of the lines.

This affiant says that there is no known available source from which the supply of gas for consumers of The Peoples Company may be increased; that every effort is being made to drill for and discover new fields and to drill wells deeper in the hope that there may be producing horizons lower than the sands from which production is now taken, but in spite of all the extraordinary efforts being made and the enormous sums expended by this company, as well as other operators, the

production of gas in the Appalachian field is declining, and there is no known remedy to increase production.

This affiant says, however, that the supply of gas now available is still further declining so that if the winter of 1919-1920 is a normal one, there will not be sufficient gas at all times in the coldest weather, even with the West Virginia supply, to fully heat the homes and do the cooking of meals in the places served by this company.

This affiant has read and is familiar with the provisions of the Act of the Legislature of West Virginia in controversy in this proceeding enacted in its regular session of 1919. That prior to July 1, 1918, he had been treasurer for a period of 16½ years of one of the largest natural gas companies operating in West Virginia, and is acquainted with the production of natural gas in West Virginia, and with the requirements of towns, cities, industrial corporations and carbon black manufacturing plants in that state.

This affiant further says that the operation of the provisions of the said bill will divert for West Virginia cities and towns, and especially for West Virginia industrial plants and carbon black manufacturers, such quantities of natural gas from the pipe lines transporting and delivering gas into Pennsylvania, that the service of natural gas for the heating of homes and lighting of houses and cooking of meals in the cities and towns in which The Peoples Company is doing business will be seriously if not wholly destroyed; that such interference with the service of natural gas is bound to occur on the extreme cold days of winter when the suffering will be widespread and the peril to the health and lives of said company's patrons serious and irremediable; that it is true that a very large proportion of the homes in the towns and cities in Western Pennsylvania are without

provision for the use of any other fuel excepting natural gas, the chimneys and flues being entirely inadequate for the use of wood and coal.

To show a concrete example of the effect upon the business of The Peoples Company of the working out of said statute, this affiant says that there are in the city of Morgantown, West Virginia, eight glass companies which consume 5,500,000 cubic feet of natural gas per day; that these glass companies are unable to operate at full capacity in the cold winter months on account of the demand of the domestic consumers. These glass companies are already prosecuting complaints before The Public Service Commission of West Virginia to secure orders diverting natural gas for themselves from the pipe lines delivering in interstate movement the supply required by The Peoples Company for its Pennsylvania business. The effect of such diversion of the supply from Pennsylvania would be to compel The Peoples Company to withdraw natural gas entirely from towns and cities in Pennsylvania now being supplied by its pipe line system. If it was found necessary that this loss of gas be distributed and prorated as far as possible over all of the consumers of The Peoples Company throughout Pennsylvania, then the effect would be to greatly increase the shortage of the supply to the domestic consumer for the heating of homes and cooking of meals on those days when the temperature is low and the peril from inadequately heated homes one of serious menace to health and life, and occasion indescribable hardship and suffering. Moreover, a shortage such as would be occasioned does not affect the lines *pro tanto*, but by reduction of pressure and volume occasions difficulty in supplying demands of consumers out of all proportion to the number of feet deficient.

This affiant further says that the provisions of said

statute render it altogether uncertain what supply of natural gas will be available from time to time and will make it impracticable for the management of The Peoples Company to estimate what amount of natural gas it will have, especially for the winter months, for its consumers; that this uncertainty is a very serious interference with the carrying on of adequate service to consumers in that consumers cannot be assured of a supply, nor can the company contract for deliveries or give that assurance of deliveries which is necessary to enable domestic consumers, and industries as well, to plan for a fuel supply.

This affiant further states that from his knowledge of the number and size of industrial and carbon plants in the state of West Virginia, the preferential requirements of said statute will be destructive of the business of The Peoples Company.

The gas transportation lines cannot be effectively operated under the terms of said statute. The demands of consumers in West Virginia at certain periods when the gas will be most urgently required by the Pennsylvania consumers of The Peoples Company will be diverted for the use of West Virginia industrial consumers, and an intermittent supply uniform only in the warm weather makes the operation of a natural gas company practically impossible.

And further this affiant saith not.

JOHN B. TONKIN.

Sworn to and subscribed before me this 7th day of May, 1919.

HARVEY RANKIN,

[SEAL] *Notary Public.*

My commission expires Jan. 20, 1921.

"EXHIBIT LIST OF CITIES AND TOWNS."

Directly served by The Peoples Natural Gas Company: Adamsburg, Altoona, Ardmore, Arnold, Avonmore, Belle Vernon, Blairsville, Bolivar, Boston, Buena Vista, Burgettstown, Candor, Carnot, Clarksburg, Cresson, Delmont, Derry, East McKeesport, Edgewood, Eldersville, Eldora, Enon Valley, Export, Fair Hope, Fayette City, Florence, Glendale, Greenock, Greensburg, Haffey (or Milltown), Harpers Corners, Harrison City, Heidleberg, Imperial, Industry, Jeannette, Juniata, Kingsville, Larimer, Latrobe, Ligonier, Livermore, Logans Ferry, Loretta, Manor, Midland, Monessen, Monroeville, Murraysville, New Florence, New Kensington, North Bessemer, North Irwin, Pittsburgh, Portage, Rankin, Salina, Saltsburg, Sankertown, Southwest Greensburg, Spring Church, Summit, Swissvale, Turtle Creek, Unity, Valley Station, Vanport, Verona, Webster, Westmoreland City, Wilkinsburg and Woodlawn.

Indirectly served: Bradford, Brookville, Cochranton, Dubois, Farrell, Franklin, Meadville, Oil City, Sharon, Sharpsville, Tidioute, Titusville, West Middlesex, Wheatland, Youngville, Johnstown, Mercer and Grove City.

AFFIDAVIT OF CARROLL MILLER.

State of Pennsylvania,
County of Allegheny, } *to-wit*:

Personally appeared before me, the undersigned authority, a Notary Public in and for said County and State, CARROLL MILLER, who, being by me duly sworn according to law, deposes as follows:

1st. That he is the General Manager of the Philadelphia Company, a Pennsylvania corporation, which company has been engaged, directly, and through its underlying companies, since 1884, in the business of supplying natural gas to the citizens of the City of Pittsburgh and vicinity. That said company is now supplying gas to domestic consumers in Pennsylvania, under 140,677 domestic contracts, and also, out of its surplus, to certain industrial consumers, said gas being sold in the following municipalities, among others:

ALLEGHENY COUNTY: Aiken Station, Allison Park, Aspinwall, Barking Station, Bellevue, Birdville, Boquet, Bower Hill, Boyce Station, Brackenridge, Braddock, Bridgeville, Broughton, Bruceton, Carnegie, Carrick, Cheswick, Clinton Terrace, Coal Valley, Crafton, Crafton Heights, Crafton Terrace, Creighton, Dormont, Duquesne, East Bellevue, East McKeesport, East Pittsburg, Edgewood, Ellisdale, Elrama, Emsworth, Epton, Etna, Ewing Station, Ewingville, Fair Haven, Fite Station, Floreffe, Gill Hall, Glendale, Glassmere, Glenfield, Greentree, Harmarville, Hawkins, Hays, Heidelberg, Hite, Hoboken, Homestead, Homestead Park, Homeville, Hulton, Ingram, Knoxville, Large, Leasdale, Lincoln Place, Lockton Station, Logans Ferry, Millers Road,

Milltown, Millvale, Montrose, Mt. Lebanon, Mt. Oliver, McKeesport, McKees Rocks, Munhall, New England, New Texas, North Braddock, Oakmont, Option, Perrysville, Pitcairn, Pittsburgh, Port Perry, Port Vue, Rankin, Redmans Mills, Rodfield, Rosevale, Rosslyn, Ross Station, Saint Clair, Sandy Creek, Sharpsburg, Snowden, Springdale, Surgeons Hall, Swissvale, Tarentum, Thornburg, Turtle Creek, Verona, Versailles, Wall, Walton Station, West Elizabeth, West Homestead, West View, West Red Raven, Westwood, Whitaker, Wilkinsburg, Williamsburg, Willock, Wilmerding, Woodville.

ARMSTRONG COUNTY: Atwood, Blanket Hill, Clinton, Cochrans Mills, Elderton, Ford City, Freeport, Kelly Station, Mosgrove, Neale, Rockville, Sagamore, Shay, Stonehouse, Whitesburg.

GREENE COUNTY: Ashtree, Brave, Brocks, Clarksville, Deep Valley, Delphene, Dunns Station, Fordyce, Garrison, Gump, Harveys, Hero, Holbrook, Hoovers Run, Jefferson, Jollytown, Kirby, Ned, Nettle Hill, New Freeport, Oak Forest, Pine Bank, Rogersville, Sand Rock, Spraggs, Sycamore, Waynesburg, Woodruff.

WASHINGTON COUNTY: Amity, Baidland, Beallsville, Bentleyville, Canonsburg, Cecil, Centerville, Claysville, Coal Bluff, Coal Center, Courtney, Charleroi, Deemston, Donora, Dunkirk, East Bethlehem, Eighty-Four, Eldora, Ellsworth, Finleyville, Fredericktown, Gastonville, Ginger Hill, Greenlee Station, Hackett, Ivanhoe, Kammeron, Khedive, Mingo, Monongahela, Pleasant View, Scenery Hill, Speers, Vanceville, Venetia.

That during the twelve months ended December 1st, 1918, the said company sold to domestic consumers 20,125,332,000 cubic feet of gas.

2nd. That said company began business by supplying its consumers with gas from wells drilled in and

around the City of Pittsburgh, and as these wells became depleted it was required to go farther and farther afield to secure an adequate supply of gas- extending, for this purpose, its many pipe lines from the said City, as the spokes extend from the hub of a wheel. In the year 1895 it extended some of its said pipe lines across the State Line, into the State of West Virginia, and has since that time been securing a constantly increasing proportion of its gas supply from the State of West Virginia. During the calendar year of 1918, 29,856,653,000 cubic feet, or approximately three-fourths, of the gas sold by the said company during that year was produced by it in West Virginia and transported by it from that State into Pennsylvania for the purpose of supplying the needs of its consumers.

3rd. That aside from its present Pennsylvania and West Virginia gas fields, there are no other known gas fields available for the purpose of supplying the consumers of the Philadelphia Company. Furthermore, in order to make up the depletion constantly taking place in its wells already drilled, the said company is required every year to drill large numbers of new wells, many of which are unproductive, in an attempt to maintain its supply of gas.

4th. That there has been passed by the Legislature of the State of West Virginia, at its recent session, and approved by the Governor, an Act, known as House Bill No. 59, which provides, *inter alia,* that an adequate supply of gas shall be furnished to industrial consumers, as well as to domestic consumers, and that if a person engaged in supplying gas to consumers within the State of West Virginia has an insufficient supply for his needs, that any other person engaged in the gas business shall, upon order of the Public Service Commission, be required to make up the deficiency to the party who is

short of gas, to the extent that the said second party shall have a production or supply in excess of the amount required to furnish his own consumers within the State of West Virginia.

5th. That during certain days of the year 1918 above referred to, the Philadelphia Company did not have enough gas to supply its own consumers. On certain days this shortage was as much as 75,000,000 cubic feet a day. That, not having enough gas for its own consumers, the delivery of gas to other distributing companies in West Virginia could only have the effect of making much greater the shortage already existing in the Pittsburgh District.

6th. That the requirement of the West Virginia statute that an adequate supply of natural gas be furnished to industrial consumers, in effect, before the needs of the domestic consumers in other States are supplied, is contrary to the general custom and usage of substantially all the gas companies in all States. The domestic consumer, by contract, as well as by said custom, by orders of Public Service Commissions, and by the rules and regulations of the United States Fuel Administration, being universally preferred.

7th. That the effect of the said statute, having regard to the present industrial demand in West Virginia, as well as the domestic demand, and to the available gas supply of said State, will be substantially to utilize all the gas produced in said State, and this, together with other provisions of said statute providing for compulsory connection to make up the deficit of any company short of supply in West Virginia, will be to prevent the transportation of gas, by this or any other company, out of the State of West Virginia.

8th. That it is of the utmost importance that the Philadelphia Company know without delay whether or

not it must turn over to industrial consumers and to other companies in West Virginia any portion of its present supply of gas. If it is under such an obligation, it will be necessary for the Philadelphia Company to give to its consumers timely warning of the impending shortage, in order that such consumers may not depend for fuel during the coming winter upon the Philadelphia Company.

CARROLL MILLER.

Sworn and subscribed to before me, this 7th day of May, A. D. 1919.

W. A. MORTON,
Notary Public.

[SEAL]

My commission expires 3/25/21.

Respectfully submitted *ex parte* complainant,

WILLIAM I. SCHAFFER,
Attorney General.

WILLIAM I. SCHAFFER,
A. LEO. WEIL,
Of Counsel.